```
RCS file: /s6/cvsroot/euterpe/BOM, v
Working file: BOM
head: 5.105
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1940; selected revisions: 17
description:
top level BOM
revision 3.565
date: 1995/04/06 23:00:24; author: lisar; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc
Picked up placement BOMs and bug fixes as described below.
Have run 5woody in verilog simulation.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/euterpe.V,v
revision 6.392
date: 1995/04/06 14:54:55 LT; author: billz; state: Exp; lines: +4 -2
Added interface signal hz10or12back (HZ-something-or-other) to
cc. Consistant with cc v1.77.
_____
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uuprblmr9.Vegn,v
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uu.V,v
revision 61.15
date: 1995/04/05 13:35:16 LT; author: mws; state: Exp; lines: +13 -9
uu/uuprblmr9 uu/uu.V: uuYieldsNbInR10 was on for Ifetch loopbacks, allowing
  CC to make new fill requests to NB and thus discarding loopbacks in progress.
  Test cachenasty3 accidentally noticed on a SN128WrtI.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uursrvduv.pla,v
revision 170.2
date: 1995/04/06 12:37:12 LT; author: mws; state: Exp; lines: +2 -2
Unclosed comment lost EDepI/EWithdrawI check for both
  immediates > 31. Found by veena test uu/edepi.pl.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/ccseq.Veqn,v
revision 28.19
date: 1995/04/06 11:22:53 LT; author: billz; state: Exp; lines: +2 -2
Corrected arc to oblivion in ccseq. Veqn. Saved one atom.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/cc.V,v
RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/cclatedirty.Veqn,v
revision 1.77
date: 1995/04/06 14:29:13 LT; author: billz; state: Exp; lines: +24 -5 Adds the "cache index match 12 back" case to be a latedirty
case. That is if a clean miss occurs and there happened to
```

Exhibit D51 Page 1 of 53

be a store to the same cache line 12 cycles back, it turns into a dirty miss, and the cache line is written back. Caution: cc interface changes. hz10or12backR5R6 signal added. Haven't update placement yet; add the moment, need a gplace license. Haven't updated euterpe yet, but will. This problem brought to light in cachenasty2. _____ _____ revision 3.564 date: 1995/04/06 21:55:54; author: tbr; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/hc change shape of placement - holein bottom right corner revision 3.563 date: 1995/04/06 21:40:19; author: tom; state: Exp; lines: +2 -2 Release Target: euterpe/compass vlsi.boo-all vlsi.boo-dcell vlsi.boo-tapeout change library name from euterpelocked to euterpe _____ revision 3.562 date: 1995/04/06 06:45:50; author: dickson; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/mc move placement right and redo center control stipe to solve un-routes revision 3.561 date: 1995/04/06 06:40:41; author: dickson; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/rg elliminate placement collisions ----revision 3.560 date: 1995/04/06 06:37:31; author: dickson; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/es move horizontal squeezing revision 3.559 date: 1995/04/06 01:09:41; author: billz; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/cc Check in of new placement. 58 rows. Aligned to nb, at, and sr. Converges in 0 iterations. Note: this placement is generated from pimlib.pl. And includes pla.pim and cc misc.pim files.

Exhibit D51 Page 2 of 53

date: 1995/04/05 21:11:28; author: fwo; state: Exp; lines: +2 -2

revision 3.558

Release Target: euterpe/compass/layouts

Removed bogus and incorrectly placed pad from proteus/compass/layouts/stpadcorner.ly into steuterpe1padtl.ly and steuterpelpadtr.ly. revision 3.557 date: 1995/04/04 18:51:52; author: tbr; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/hc 100% handplace hc1 _____ revision 3.556 date: 1995/04/04 18:14:36; author: brian; state: Exp; lines: +2 -2 Release Target: euterpe/verify/standalone/hc Added changes for new hc event register access. revision 3.555 date: 1995/04/04 05:14:06; author: tbr; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/gt move control to center - saves 400 atoms revision 3.554 date: 1995/04/04 00:28:04; author: geert; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/cp New placement. Made space for VDDTS Geert _____ revision 3.553 date: 1995/04/03 23:42:41; author: geert; state: Exp; lines: +2 -2 Release Target: euterpe/compass/layouts euterpe-hwc.ly New obstruction mask Geert. revision 3.552 date: 1995/04/03 20:15:10; author: dickson; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/rg moved pc to bit positions 63:0 from 127:64 and moved bypass mux elements to free up more horizontal tracks revision 3.551 date: 1995/04/03 17:44:10; author: dickson; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/gf moved to align with bit positions 127:64 instead of 63:0 _____ revision 3.550 date: 1995/04/03 07:16:16; author: mws; state: Exp; lines: +2 -2

Exhibit D51 Page 3 of 53

Release Target: euterpe/verilog/bsrc

```
uu/uursrvduu.tdcd cj/Makefile:
  Typo's left out GShuffleI4Mux (ex15test_0) and merge deposits
  (exresemdepitest1 0 and exresgmdepitest\overline{1} 0). Add rsrvdgsffli4mx.tst rule.
yy/tas.pl: Typo's prevented shufflei4mux from being recognized.
revision 3.549
date: 1995/04/02 02:55:28; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/rsrvd.tst Makefile:
  Typo left GCompressI out of the care sets and it then tended to become a
  reserved instruction (noticed by test xlu subset r1 1).
 Typo left GShuffleI and GShuffleI4Mux not checking their immediates (noticed
 by test ex15test 0). Add rsrvdgshffli.tst rule.
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
  Compatible with recent mem mngmnt pipelining.
tst/job.tst: Comment out perl debug warnings.
ife/iffree.tst: Experiments preparing for change in reset vector.
euterpe.status:
 Add note on LTLB changing under IFetch violating protection at new GVA.
 Remove note about lack of pipelined memory management enable.
 Add note on writeback reject bug worries.
 Add note on ICache size change exposure with mem management mode change.
Makefile euterpe wrap.V i euterpe wrap.tb i euterpe wrap.vhdl: lisar stuff.
______
RCS file: /s6/cvsroot/euterpe/baseplate/membrane.lst,v
Working file: baseplate/membrane.lst
head: 15.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1; selected revisions: 1
description:
_____
revision 15.1
date: 1995/04/05 16:17:46; author: lisar; state: Exp;
Document the membrane probe card
______
RCS file: /s6/cvsroot/euterpe/compass/BOM,v
Working file: compass/BOM
head: 7.21
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 67; selected revisions: 3
description:
revision 3.7
date: 1995/04/06 21:39:55; author: tom; state: Exp; lines: +4 -4
Release Target: euterpe/compass
     vlsi.boo-all
     vlsi.boo-dcell
     vlsi.boo-tapeout
```

Exhibit D51 Page 4 of 53

```
change library name from euterpelocked to euterpe
-----
revision 3.6
date: 1995/04/05 21:11:12; author: fwo; state: Exp; lines: +2 -2
Release Target: euterpe/compass/layouts
Removed bogus and incorrectly placed pad from
proteus/compass/layouts/stpadcorner.ly into steuterpe1padtl.ly
and steuterpelpadtr.ly.
revision 3.5
date: 1995/04/03 23:42:17; author: geert; state: Exp; lines: +2 -2
Release Target: euterpe/compass/layouts
     euterpe-hwc.ly
New obstruction mask
Geert
______
RCS file: /s6/cvsroot/euterpe/compass/vlsi.boo-all,v
Working file: compass/vlsi.boo-all
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10; selected revisions: 1
description:
.boo file listing all libraries in normal order
______
revision 1.9
date: 1995/04/06 21:39:28; author: tom; state: Exp; lines: +3 -3
change library name from euterpelocked to euterpe
______
RCS file: /s6/cvsroot/euterpe/compass/vlsi.boo-dcell,v
Working file: compass/vlsi.boo-dcell
head: 1.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9; selected revisions: 1
description:
.boo file listing all libraries, with dcells first
revision 1.8
date: 1995/04/06 21:39:30; author: tom; state: Exp; lines: +3 -3
change library name from euterpelocked to euterpe
______
RCS file: /s6/cvsroot/euterpe/compass/vlsi.boo-tapeout,v
Working file: compass/vlsi.boo-tapeout
head: 1.11
branch:
```

Exhibit D51 Page 5 of 53

```
locks: strict
access list:
keyword substitution: kv
total revisions: 11; selected revisions: 1
description:
.boo file listing only locked libraries
_____
revision 1.9
date: 1995/04/06 21:39:33; author: tom; state: Exp; lines: +3 -3
change library name from euterpelocked to euterpe
______
RCS file: /s6/cvsroot/euterpe/compass/layouts/BOM,v
Working file: compass/layouts/BOM
head: 27.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 79; selected revisions: 3
description:
releasebom adding BOM
revision 17.0
date: 1995/04/05 21:11:00; author: fwo; state: Exp; lines: +1 -1
Release Target: euterpe/compass/layouts
Removed bogus and incorrectly placed pad from
proteus/compass/layouts/stpadcorner.ly into steuterpelpadtl.ly
and steuterpelpadtr.ly.
_____
revision 16.2
date: 1995/04/05 21:10:50; author: fwo; state: Exp; lines: +5 -5
releasebom: File needs to be up-to-date to use commit -r
_____
revision 16.1
date: 1995/04/03 23:42:05; author: geert; state: Exp; lines: +2 -2
Release Target: euterpe/compass/layouts
     euterpe-hwc.lv
New obstruction mask
Geert
RCS file: /s6/cvsroot/euterpe/compass/layouts/euterpe-hwc.ly,v
Working file: compass/layouts/euterpe-hwc.ly
head: 5.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5; selected revisions: 1
description:
_____
revision 5.5
date: 1995/04/03 23:41:22; author: chip; state: Exp; lines: +28 -2
```

Exhibit D51 Page 6 of 53

```
periodic checkin of Mon Apr 3 16:41:20 PDT 1995
______
RCS file: /s6/cvsroot/euterpe/compass/layouts/steuterpe1padt1.ly,v
Working file: compass/layouts/steuterpe1padtl.ly
head: 8.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4; selected revisions: 1
description:
revision 8.2
date: 1995/04/05 21:03:32; author: chip; state: Exp; lines: +4 -2
periodic checkin of Wed Apr 5 14:03:29 PDT 1995
______
RCS file: /s6/cvsroot/euterpe/compass/layouts/steuterpelpadtr.ly,v
Working file: compass/layouts/steuterpe1padtr.ly
head: 8.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4; selected revisions: 1
description:
_____
revision 8.2
date: 1995/04/05 21:03:34; author: chip; state: Exp; lines: +4 -2
periodic checkin of Wed Apr 5 14:03:29 PDT 1995
______
RCS file: /s6/cvsroot/euterpe/compass/layouts/vlsi.cko,v
Working file: compass/layouts/vlsi.cko
head: 2.73
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 73; selected revisions: 5
description:
revision 2.23
date: 1995/04/05 21:03:36; author: chip; state: Exp; lines: +0 -2
periodic checkin of Wed Apr 5 14:03:29 PDT 1995
revision 2.22
date: 1995/04/05 19:47:03; author: chip; state: Exp; lines: +1 -0
periodic checkin of Wed Apr 5 12:47:01 PDT 1995
revision 2.21
date: 1995/04/05 19:45:27; author: chip; state: Exp; lines: +1 -0
periodic checkin of Wed Apr 5 12:45:25 PDT 1995
-----
revision 2.20
date: 1995/04/03 23:41:24; author: chip; state: Exp; lines: +0 -1
```

Exhibit D51 Page 7 of 53

```
periodic checkin of Mon Apr 3 16:41:20 PDT 1995
revision 2.19
date: 1995/04/03 23:24:03; author: chip; state: Exp; lines: +1 -0
periodic checkin of Mon Apr 3 16:24:00 PDT 1995
_____
RCS file: /s6/cvsroot/euterpe/compass/layouts/vlsi.log,v
Working file: compass/layouts/vlsi.log
head: 2.88
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 88; selected revisions: 5
description:
_____
revision 2.24
date: 1995/04/05 21:03:37; author: chip; state: Exp; lines: +4 -0 periodic checkin of Wed Apr 5 14:03:29 PDT 1995
revision 2.23
date: 1995/04/05 \ 19:47:04; author: chip; state: Exp; lines: +1 -0
periodic checkin of Wed Apr 5 12:47:01 PDT 1995
-----
revision 2.22
date: 1995/04/05 19:45:29; author: chip; state: Exp; lines: +1 -0
periodic checkin of Wed Apr 5 12:45:25 PDT 1995
-----
revision 2.21
date: 1995/04/03 23:41:25; author: chip; state: Exp; lines: +2 -0
periodic checkin of Mon Apr 3 16:41:20 PDT 1995
revision 2.20
date: 1995/04/03 23:24:05; author: chip; state: Exp; lines: +1 -0
periodic checkin of Mon Apr 3 16:24:00 PDT 1995
______
RCS file: /s6/cvsroot/euterpe/verify/BOM, v
Working file: verify/BOM
head: 12.34
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 404; selected revisions: 1
description:
revision 4.87
date: 1995/04/04 18:14:12; author: brian; state: Exp; lines: +2 -2
Release Target: euterpe/verify/standalone/hc
Added changes for new hc event register access.
______
RCS file: /s6/cvsroot/euterpe/verify/include/physaddr.h,v
```

Exhibit D51 Page 8 of 53

Working file: verify/include/physaddr.h

```
head: 4.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 24; selected revisions: 2
description:
revision 4.22
date: 1995/04/06 05:29:57; author: lisar; state: Exp; lines: +13 -4
Fix HERMESINTERLEAVESHIFT
revision 4.21
date: 1995/04/04 22:29:40; author: jeffm; state: Exp; lines: +10 -1
Make event daemon address macros generate addresses at blocking read
offset.
______
RCS file: /s6/cvsroot/euterpe/verify/obj/processor/inst/Makefile,v
Working file: verify/obj/processor/inst/Makefile
head: 1.182
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 182; selected revisions: 5
description:
_____
revision 1.138
date: 1995/04/06 18:10:36; author: jeffm; state: Exp; lines: +2 -2
Test cached event handler and bbacking to cached code streams.
revision 1.137
date: 1995/04/06 05:40:46; author: lisar; state: Exp; lines: +2 -2
Corrected spelling of nbhilotest
_____
revision 1.136
date: 1995/04/06 00:37:34; author: jeffm; state: Exp; lines: +3 -3
New tests.
revision 1.135
date: 1995/04/04 01:44:40; author: jeffm; state: Exp; lines: +2 -2
cachenasty3 - new test, same as cachenasty2, but with only two lo-prio
nb entries.
dcacheharder7 - fixed to not cause illegal address (but still think
we might get ex11).
revision 1.134
date: 1995/04/04 01:22:12; author: lisar; state: Exp; lines: +4 -3
Added new interleave tests
______
RCS file: /s6/cvsroot/euterpe/verify/random/stgen r16899.S,v
Working file: verify/random/stgen r16899.S
head: 3.2
```

Exhibit D51 Page 9 of 53

branch:

```
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
revision 3.1
date: 1995/04/04 01:53:44; author: lisar; state: Exp;
More random tests (old stgen)
______
RCS file: /s6/cvsroot/euterpe/verify/random/stgen r17070.S,v
Working file: verify/random/stgen r17070.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
revision 3.1
date: 1995/04/04 01:53:48; author: lisar; state: Exp;
More random tests (old stgen)
______
RCS file: /s6/cvsroot/euterpe/verify/random/stgen r17235.S,v
Working file: verify/random/stgen r17235.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;
                 selected revisions: 1
description:
_____
revision 3.1
date: 1995/04/04 01:53:50; author: lisar; state: Exp;
More random tests (old stgen)
_____
RCS file: /s6/cvsroot/euterpe/verify/random/stgen r17405.S,v
Working file: verify/random/stgen r17405.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
revision 3.1
date: 1995/04/04 01:53:52; author: lisar; state: Exp;
More random tests (old stgen)
______
RCS file: /s6/cvsroot/euterpe/verify/random/stgen r22478.S,v
```

```
Working file: verify/random/stgen r22478.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
revision 3.1
date: 1995/04/04 01:46:48; author: lisar; state: Exp;
found hermes problem
                      ______
RCS file: /s6/cvsroot/euterpe/verify/random/stgen_r29924.S,v
Working file: verify/random/stgen r29924.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
_____
revision 3.1
date: 1995/04/04 01:45:59; author: lisar; state: Exp;
Uses the new stgen
______
RCS file: /s6/cvsroot/euterpe/verify/standalone/BOM, v
Working file: verify/standalone/BOM
head: 6.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 85; selected revisions: 1
description:
revision 4.25
date: 1995/04/04 18:13:59; author: brian; state: Exp; lines: +2 -2
Release Target: euterpe/verify/standalone/hc
Added changes for new hc event register access.
__________
RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/BOM,v
Working file: verify/standalone/hc/BOM
head: 11.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 20;
                   selected revisions: 2
description:
releasebom adding BOM
_____
```

Exhibit D51 Page 11 of 53

```
revision 10.0
date: 1995/04/04 18:13:46; author: brian; state: Exp; lines: +1 -1
Release Target: euterpe/verify/standalone/hc
Added changes for new hc event register access.
revision 9.1
date: 1995/04/04 18:13:37; author: brian; state: Exp; lines: +4 -4
releasebom: File needs to be up-to-date to use commit -r
_______
RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/NOTES,v
Working file: verify/standalone/hc/NOTES
head: 1.28
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 28; selected revisions: 1
description:
revision 1.24
date: 1995/04/04 17:59:00; author: brian; state: Exp; lines: +18 -0
Modified for new event handling. Hc now pases lower bits to allow access
to all event daemon registers.
______
RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/event.pl,v
Working file: verify/standalone/hc/event.pl
head: 5.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3; selected revisions: 1
description:
_____
revision 5.3
date: 1995/04/04 19:43:11; author: woody; state: Exp; lines: +5 -31
Update to include design change and to use hclib.pl for subroutines.
______
RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/evnt8.vec,v
Working file: verify/standalone/hc/evnt8.vec
head: 5.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7; selected revisions: 1
description:
revision 5.7
date: 1995/04/04 17:59:03; author: brian; state: Exp; lines: +8 -8
Modified for new event handling. Hc now pases lower bits to allow access
to all event daemon registers.
______
```

Exhibit D51 Page 12 of 53

```
RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/hclib.pl,v
Working file: verify/standalone/hc/hclib.pl
head: 9.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3; selected revisions: 1
description:
revision 9.1
date: 1995/04/04 19:41:58; author: woody; state: Exp;
A collection of subroutines for generating nbhc standalone tests.
RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/nbhc drive.V,v
Working file: verify/standalone/hc/nbhc drive.V
head: 1.55
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 55; selected revisions: 1
description:
_____
revision 1.47
date: 1995/04/04 17:59:05; author: brian; state: Exp; lines: +11 -11
Modified for new event handling. Hc now pases lower bits to allow access
to all event daemon registers.
______
RCS file: /s6/cvsroot/euterpe/verify/standalone/nb/NOTES,v
Working file: verify/standalone/nb/NOTES
head: 1.16
branch:
locks: strict
access list:
keyword substitution: ky
total revisions: 16; selected revisions: 1
description:
revision 1.13
date: 1995/04/04 18:17:22; author: brian; state: Exp; lines: +4 -1
Update of NOTES.
______
RCS file: /s6/cvsroot/euterpe/verify/standalone/nb/vecgen.c,v
Working file: verify/standalone/nb/vecgen.c
head: 1.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9; selected revisions: 1
description:
_____
```

Exhibit D51 Page 13 of 53

```
revision 1.9
date: 1995/04/04 18:14:57; author: brian; state: Exp; lines: +4 -4
Changed event 'a' arm command to use 0x8 instead of 0x0 in lower portion
of address.
______
RCS file: /s6/cvsroot/euterpe/verify/tools/stgen,v
Working file: verify/tools/stgen
head: 5.12
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 12; selected revisions: 2
description:
revision 5.9
date: 1995/04/07 00:20:09; author: doi; state: Exp; lines: +8 -3
include information on how to rerun a particular test in the output
_____
revision 5.8
date: 1995/04/03 16:31:35; author: doi; state: Exp; lines: +7 -7
fixed typo that prevented hermes channels from being enabled
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/Makefile,v
Working file: verify/toplevel/Makefile
head: 1.185
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 185; selected revisions: 5
description:
revision 1.138
date: 1995/04/06 18:10:36; author: jeffm; state: Exp; lines: +2 -2
Test cached event handler and bbacking to cached code streams.
revision 1.137
date: 1995/04/06 05:40:46; author: lisar; state: Exp; lines: +2 -2
Corrected spelling of nbhilotest
revision 1.136
date: 1995/04/06 00:37:34; author: jeffm; state: Exp; lines: +3 -3
New tests.
revision 1.135
date: 1995/04/04 01:44:40; author: jeffm; state: Exp; lines: +2 -2
cachenasty3 - new test, same as cachenasty2, but with only two lo-prio
nb entries.
dcacheharder7 - fixed to not cause illegal address (but still think
we might get ex11).
_____
revision 1.134
date: 1995/04/04 01:22:12; author: lisar; state: Exp; lines: +4 -3
```

Exhibit D51 Page 14 of 53

Exhibit D51 Page 15 of 53

head: 11.13 branch:

locks: strict

```
access list:
keyword substitution: kv
total revisions: 13; selected revisions: 1
description:
revision 11.13
date: 1995/04/06 22:12:41; author: jeffm; state: Exp; lines: +4 -4
Fix test bugs.
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/dcacheharder4.S,v
Working file: verify/toplevel/dcacheharder4.S
head: 31.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4; selected revisions: 1
description:
-----
revision 31.3
date: 1995/04/06 22:12:44; author: jeffm; state: Exp; lines: +2 -2
Fix test bugs.
_____
RCS file: /s6/cvsroot/euterpe/verify/toplevel/dcacheharder7.S,v
Working file: verify/toplevel/dcacheharder7.S
head: 35.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
_____
revision 35.2
date: 1995/04/04 01:44:37; author: jeffm; state: Exp; lines: +24 -18
cachenasty3 - new test, same as cachenasty2, but with only two lo-prio
nb entries.
dcacheharder7 - fixed to not cause illegal address (but still think
we might get ex11).
_____
RCS file: /s6/cvsroot/euterpe/verify/toplevel/ex11test3.S,v
Working file: verify/toplevel/ex11test3.S
head: 35.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4; selected revisions: 1
description:
revision 35.1
date: 1995/04/06 00:37:31; author: jeffm; state: Exp;
```

Exhibit D51 Page 16 of 53

```
RCS file: /s6/cvsroot/euterpe/verify/toplevel/exhancache.S,v
Working file: verify/toplevel/exhancache.S
head: 35.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1; selected revisions: 1
description:
revision 35.1
date: 1995/04/06 18:10:33; author: jeffm; state: Exp;
Test cached event handler and bbacking to cached code streams.
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/gtlbaccess2.S,v
Working file: verify/toplevel/gtlbaccess2.S
head: 7.15
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 15; selected revisions: 1
description:
_____
revision 7.15
date: 1995/04/06 19:02:30; author: jeffm; state: Exp; lines: +29 -7
Needed to add gtlb entry for dram (printing).
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/gtlbaccess3.S,v
Working file: verify/toplevel/gtlbaccess3.S
head: 7.14
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 14; selected revisions: 1
description:
revision 7.14
date: 1995/04/06 19:02:32; author: jeffm; state: Exp; lines: +18 -28
Needed to add gtlb entry for dram (printing).
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/gtlbaccess4.S,v
Working file: verify/toplevel/gtlbaccess4.S
head: 26.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4; selected revisions: 1
description:
_____
```

Exhibit D51 Page 17 of 53

```
revision 26.4
date: 1995/04/06 19:02:34; author: jeffm; state: Exp; lines: +22 -31
Needed to add gtlb entry for dram (printing).
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/gtlbmisseasy.S,v
Working file: verify/toplevel/gtlbmisseasy.S
head: 7.13
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13; selected revisions: 1
description:
revision 7.13
date: 1995/04/06 19:06:29; author: jeffm; state: Exp; lines: +21 -6
Added gtlb entry for printing.
_______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/hermes I1.S,v
Working file: verify/toplevel/hermes I1.S
head: 35.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
_____
revision 35.1
date: 1995/04/04 01:20:36; author: lisar; state: Exp;
Interleave tests
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/hermes I2.S,v
Working file: verify/toplevel/hermes I2.S
head: 35.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1; selected revisions: 1
description:
revision 35.1
date: 1995/04/04 01:20:39; author: lisar; state: Exp;
Interleave tests
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/hermes I4.S,v
Working file: verify/toplevel/hermes I4.S
head: 35.2
branch:
locks: strict
access list:
keyword substitution: kv
```

Exhibit D51 Page 18 of 53

```
total revisions: 2; selected revisions: 1
description:
revision 35.1
date: 1995/04/04 01:20:41; author: lisar; state: Exp;
Interleave tests
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/hermes I store unique.S,v
Working file: verify/toplevel/hermes I store unique.S
head: 35.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
_____
revision 35.1
date: 1995/04/04 01:20:44; author: lisar; state: Exp;
Interleave tests
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/hermeseasy I1M0.S,v
Working file: verify/toplevel/hermeseasy I1MO.S
head: 35.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
revision 35.1
date: 1995/04/04 01:20:47; author: lisar; state: Exp;
Interleave tests
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/icache4k.S,v
Working file: verify/toplevel/icache4k.S
head: 33.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
revision 33.2
date: 1995/04/03 16:30:34; author: jeffm; state: Exp; lines: +5 -4
Fix out of range immediate values.
______
RCS file: /s6/cvsroot/euterpe/verify/toplevel/template,v
Working file: verify/toplevel/template
head: 1.148
branch:
```

Exhibit D51 Page 19 of 53

```
locks: strict
access list:
keyword substitution: kv
total revisions: 148; selected revisions: 1
description:
revision 1.83
date: 1995/04/04 01:22:53; author: lisar; state: Exp; lines: +68 -34
Periodic checkin.
______
RCS file: /s6/cvsroot/euterpe/verilog/BOM, v
Working file: verilog/BOM
head: 6.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1390; selected revisions: 13
description:
top level verilog BOM
______
revision 3.455
date: 1995/04/06 23:00:03; author: lisar; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc
Picked up placement BOMs and bug fixes as described below.
Have run 5woody in verilog simulation.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/euterpe.V,v
revision 6.392
date: 1995/04/06 14:54:55 LT; author: billz; state: Exp; lines: +4 -2
Added interface signal hz10or12back (HZ-something-or-other) to
cc. Consistant with cc v1.77.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uuprblmr9.Vegn,v
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uu.V,v
revision 61.15
date: 1995/04/05 13:35:16 LT; author: mws; state: Exp; lines: +13 -9
uu/uuprblmr9 uu/uu.V: uuYieldsNbInR10 was on for Ifetch loopbacks, allowing
 CC to make new fill requests to NB and thus discarding loopbacks in progress.
 Test cachenasty3 accidentally noticed on a SN128WrtI.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uursrvduv.pla,v
revision 170.2
date: 1995/04/06 12:37:12 LT; author: mws; state: Exp; lines: +2 -2
Unclosed comment lost EDepI/EWithdrawI check for both
  immediates > 31. Found by veena test uu/edepi.pl.
_____
RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/ccseq.Veqn,v
```

Exhibit D51 Page 20 of 53

revision 28.19

date: 1995/04/06 11:22:53 LT; author: billz; state: Exp; lines: +2 -2 Corrected arc to oblivion in ccseq. Veqn. Saved one atom. RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/cc.V,v RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/cclatedirty.Veqn,v revision 1.77 date: 1995/04/06 14:29:13 LT; author: billz; state: Exp; lines: +24 -5 Adds the "cache index match 12 back" case to be a latedirty case. That is if a clean miss occurs and there happened to be a store to the same cache line 12 cycles back, it turns into a dirty miss, and the cache line is written back. Caution: cc interface changes. hz10or12backR5R6 signal added. Haven't update placement yet; add the moment, need a gplace license. Haven't updated euterpe yet, but will. This problem brought to light in cachenasty2. ______ _____ revision 3.454 date: 1995/04/06 21:55:37; author: tbr; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/hc change shape of placement - holein bottom right corner _____ revision 3.453 date: 1995/04/06 06:45:35; author: dickson; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/mc move placement right and redo center control stipe to solve un-routes _____ revision 3.452 date: 1995/04/06 06:40:25; author: dickson; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/rg elliminate placement collisions revision 3.451 date: 1995/04/06 06:37:15; author: dickson; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/es move horizontal squeezing revision 3.450 date: 1995/04/06 01:09:17; author: billz; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/cc Check in of new placement. 58 rows. Aligned to nb, at, and sr. Converges in 0 iterations. Note: this placement is generated from pimlib.pl.

date: 1995/04/04 18:51:35; author: tbr; state: Exp; lines: +2 -2

And includes pla.pim and cc misc.pim files.

revision 3.449

Exhibit D51 Page 21 of 53

```
Release Target: euterpe/verilog/bsrc/hc
100% handplace hc1
revision 3.448
date: 1995/04/04 05:13:48; author: tbr; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/qt
move control to center - saves 400 atoms
revision 3.447
date: 1995/04/04 00:27:47; author: geert; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/cp
New placement. Made space for VDDTS
Geert
revision 3.446
date: 1995/04/03 20:14:55; author: dickson; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/rg
moved pc to bit positions 63:0 from 127:64 and moved bypass mux elements to free
up more horizontal tracks
_____
revision 3.445
date: 1995/04/03 17:43:52; author: dickson; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/qf
moved to align with bit positions 127:64 instead of 63:0
-----
revision 3.444
date: 1995/04/03 07:16:02; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/Makefile:
 Typo's left out GShuffleI4Mux (ex15test 0) and merge deposits
  (exresemdepitest1 0 and exresgmdepitest1 0). Add rsrvdgsffli4mx.tst rule.
yy/tas.pl: Typo's prevented shufflei4mux from being recognized.
revision 3.443
date: 1995/04/02 02:55:05; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/rsrvd.tst Makefile:
 Typo left GCompressI out of the care sets and it then tended to become a
 reserved instruction (noticed by test xlu subset r1 1).
 Typo left GShuffleI and GShuffleI4Mux not checking their immediates (noticed
 by test ex15test 0). Add rsrvdgshffli.tst rule.
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
 Compatible with recent mem mngmnt pipelining.
tst/job.tst: Comment out perl debug warnings.
ife/iffree.tst: Experiments preparing for change in reset vector.
euterpe.status:
  Add note on LTLB changing under IFetch violating protection at new GVA.
  Remove note about lack of pipelined memory management enable.
 Add note on writeback reject bug worries.
```

Exhibit D51 Page 22 of 53

Add note on ICache size change exposure with mem management mode change. Makefile euterpe wrap.V i euterpe wrap.tb i euterpe wrap.vhdl: lisar stuff. _____ RCS file: /s6/cvsroot/euterpe/verilog/bsrc/BOM,v Working file: verilog/bsrc/BOM head: 346.6 branch: locks: strict access list: keyword substitution: kv total revisions: 1737; selected revisions: 16 description: revision 273.0 date: 1995/04/06 22:59:41; author: lisar; state: Exp; lines: +1 -1 Release Target: euterpe/verilog/bsrc Picked up placement BOMs and bug fixes as described below. Have run 5woody in verilog simulation. RCS file: /p/cvsroot/euterpe/verilog/bsrc/euterpe.V,v revision 6.392 date: 1995/04/06 14:54:55 LT; author: billz; state: Exp; lines: +4 -2 Added interface signal hz10or12back (HZ-something-or-other) to cc. Consistant with cc v1.77. _____ RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uuprblmr9.Vegn,v RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uu.V,v revision 61.15 date: 1995/04/05 13:35:16 LT; author: mws; state: Exp; lines: +13 -9 uu/uuprblmr9 uu/uu.V: uuYieldsNbInR10 was on for Ifetch loopbacks, allowing CC to make new fill requests to NB and thus discarding loopbacks in progress. Test cachenasty3 accidentally noticed on a SN128WrtI. RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uursrvduv.pla,v revision 170.2 date: 1995/04/06 12:37:12 LT; author: mws; state: Exp; lines: +2 -2 Unclosed comment lost EDepI/EWithdrawI check for both immediates > 31. Found by veena test uu/edepi.pl. _____ RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/ccseq.Veqn,v revision 28.19 date: 1995/04/06 11:22:53 LT; author: billz; state: Exp; lines: +2 -2 Corrected arc to oblivion in ccseq. Veqn. Saved one atom. RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/cc.V,v RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/cclatedirty.Veqn,v

Exhibit D51 Page 23 of 53

date: 1995/04/06 14:29:13 LT; author: billz; state: Exp; lines: +24 -5

revision 1.77

Adds the "cache index match 12 back" case to be a latedirty case. That is if a clean miss occurs and there happened to be a store to the same cache line 12 cycles back, it turns into a dirty miss, and the cache line is written back.

Caution: cc interface changes. hz10or12backR5R6 signal added.

Haven't update placement yet; add the moment, need a gplace license. Haven't updated euterpe yet, but will.

This problem brought to light in cachenasty2.

revision 272.11

date: 1995/04/06 22:59:26; author: lisar; state: Exp; lines: +5 -5 releasebom: File needs to be up-to-date to use commit -r

revision 272.10

date: 1995/04/06 21:55:22; author: tbr; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/hc

change shape of placement - holein bottom right corner

revision 272.9

date: $1995/04/06\ 06:45:19$; author: dickson; state: Exp; lines: $+2\ -2$ Release Target: euterpe/verilog/bsrc/mc

move placement right and redo center control stipe to solve un-routes

revision 272.8

date: 1995/04/06 06:40:10; author: dickson; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/rg

elliminate placement collisions

revision 272.7

date: 1995/04/06 06:37:01; author: dickson; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/es

move horizontal squeezing

revision 272.6

date: 1995/04/06 01:08:55; author: billz; state: Exp; lines: +2 -2 Release Target: euterpe/verilog/bsrc/cc

Check in of new placement. 58 rows. Aligned to nb, at, and sr. Converges in 0 iterations.

Note: this placement is generated from pimlib.pl.

And includes pla.pim and cc_misc.pim files.

revision 272.5

date: 1995/04/04 18:51:15; author: tbr; state: Exp; lines: +2 -2

Release Target: euterpe/verilog/bsrc/hc

100% handplace hc1

```
revision 272.4
date: 1995/04/04 05:13:33; author: tbr; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/gt
move control to center - saves 400 atoms
revision 272.3
date: 1995/04/04 00:27:32; author: geert; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/cp
New placement. Made space for VDDTS
Geert
revision 272.2
date: 1995/04/03 20:14:41; author: dickson; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/rg
moved pc to bit positions 63:0 from 127:64 and moved bypass mux elements to free
up more horizontal tracks
_____
revision 272.1
date: 1995/04/03 17:43:34; author: dickson; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/gf
moved to align with bit positions 127:64 instead of 63:0
_____
revision 272.0
date: 1995/04/03 07:15:46; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/Makefile:
  Typo's left out GShuffleI4Mux (ex15test 0) and merge deposits
  (exresemdepitest1 0 and exresqmdepitest1 0). Add rsrvdgsffli4mx.tst rule.
yy/tas.pl: Typo's prevented shufflei4mux from being recognized.
revision 271.1
date: 1995/04/03 07:15:35; author: mws; state: Exp; lines: +4 -4
releasebom: File needs to be up-to-date to use commit -r
revision 271.0
date: 1995/04/02 02:54:40; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/rsrvd.tst Makefile:
 Typo left GCompressI out of the care sets and it then tended to become a
  reserved instruction (noticed by test xlu subset r1 1).
 Typo left GShuffleI and GShuffleI4Mux not checking their immediates (noticed
 by test ex15test 0). Add rsrvdgshffli.tst rule.
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
 Compatible with recent mem mngmnt pipelining.
tst/job.tst: Comment out perl debug warnings.
ife/iffree.tst: Experiments preparing for change in reset vector.
euterpe.status:
  Add note on LTLB changing under IFetch violating protection at new GVA.
  Remove note about lack of pipelined memory management enable.
  Add note on writeback reject bug worries.
```

Exhibit D51 Page 25 of 53

```
Add note on ICache size change exposure with mem management mode change.
Makefile euterpe wrap.V i euterpe wrap.tb i euterpe wrap.vhdl: lisar stuff.
-----
revision 270.3
date: 1995/04/02 02:54:20; author: mws; state: Exp; lines: +10 -10
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/analog euterpe.hwc,v
Working file: verilog/bsrc/analog euterpe.hwc
head: 35.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7; selected revisions: 1
description:
_____
revision 35.5
date: 1995/04/03 23:44:37; author: geert; state: Exp; lines: +2 -4
Changed obstruction mask for VDDTS
Geert
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/euterpe.V,v
Working file: verilog/bsrc/euterpe.V
head: 6.431
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 431; selected revisions: 2
description:
revision 6.392
date: 1995/04/06 21:54:55; author: billz; state: Exp; lines: +4 -2
Added interface signal hz10or12back (HZ-something-or-other) to
cc. Consistant with cc v1.77.
revision 6.391
date: 1995/04/03 17:40:44; author: dickson; state: Exp; lines: +2 -2
changed operand hookup to gf from bits 63:0 to 127:64
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/euterpe.status,v
Working file: verilog/bsrc/euterpe.status
head: 24.83
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 83; selected revisions: 2
description:
revision 24.50
date: 1995/04/05 20:38:44; author: mws; state: Exp; lines: +25 -1
One serious bug & lots of silly logic.
```

Exhibit D51 Page 26 of 53

```
revision 24.49
date: 1995/04/02 02:23:25; author: mws; state: Exp; lines: +9 -1
 Add note on LTLB changing under IFetch violating protection at new GVA.
_____
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/i euterpe wrap.tb,v
Working file: verilog/bsrc/i euterpe wrap.tb
head: 187.15
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 15; selected revisions: 1
description:
revision 187.8
date: 1995/04/06 21:16:21; author: lisar; state: Exp; lines: +1 -10
Don't instantiate snoop yet
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/BOM,v
Working file: verilog/bsrc/cc/BOM
head: 92.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 182; selected revisions: 4
description:
releasebom adding BOM
______
revision 75.0
date: 1995/04/06 22:53:24; author: lisar; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
Picked up placement BOMs and bug fixes as described below.
Have run 5woody in verilog simulation.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/euterpe.V,v
revision 6.392
date: 1995/04/06 14:54:55 LT; author: billz; state: Exp; lines: +4 -2
Added interface signal hz10or12back (HZ-something-or-other) to
cc. Consistant with cc v1.77.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uuprblmr9.Veqn,v
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uu.V,v
revision 61.15
date: 1995/04/05 13:35:16 LT; author: mws; state: Exp; lines: +13 -9
uu/uuprblmr9 uu/uu.V: uuYieldsNbInR10 was on for Ifetch loopbacks, allowing
 CC to make new fill requests to NB and thus discarding loopbacks in progress.
  Test cachenasty3 accidentally noticed on a SN128WrtI.
```

Exhibit D51 Page 27 of 53

RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uursrvduv.pla,v revision 170.2 date: 1995/04/06 12:37:12 LT; author: mws; state: Exp; lines: +2 -2 Unclosed comment lost EDepI/EWithdrawI check for both immediates > 31. Found by veena test uu/edepi.pl. _____ RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/ccseq.Veqn,v revision 28.19 date: 1995/04/06 11:22:53 LT; author: billz; state: Exp; Corrected arc to oblivion in ccseq. Veqn. Saved one atom. RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/cc.V,v RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/cclatedirty.Veqn,v revision 1.77 date: 1995/04/06 14:29:13 LT; author: billz; state: Exp; lines: +24 -5 Adds the "cache index match 12 back" case to be a latedirty case. That is if a clean miss occurs and there happened to be a store to the same cache line 12 cycles back, it turns into a dirty miss, and the cache line is written back. Caution: cc interface changes. hz10or12backR5R6 signal added. Haven't update placement yet; add the moment, need a gplace license. Haven't updated euterpe yet, but will. This problem brought to light in cachenasty2. -----_____ revision 74.1 date: 1995/04/06 22:53:17; author: lisar; state: Exp; lines: +5 -5 releasebom: File needs to be up-to-date to use commit -r _____ revision 74.0 date: 1995/04/06 01:08:18; author: billz; state: Exp; lines: +1 -1 Release Target: euterpe/verilog/bsrc/cc Check in of new placement. 58 rows. Aligned to nb, at, and sr. Converges in 0 iterations. Note: this placement is generated from pimlib.pl. And includes pla.pim and cc misc.pim files. revision 73.1 date: 1995/04/06 01:08:10; author: billz; state: Exp; lines: +13 -12 releasebom: File needs to be up-to-date to use commit -r ______ RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/Makefile,v Working file: verilog/bsrc/cc/Makefile head: 1.27 branch: locks: strict access list:

Exhibit D51 Page 28 of 53

keyword substitution: kv

```
total revisions: 27; selected revisions: 2
description:
revision 1.23
date: 1995/04/06 23:12:27; author: billz; state: Exp; lines: +1 -3
Placement is updated.
Changes to cc.V: just declared wire busy.
Makefile: just changed GARDS DISPLAY.
-----
revision 1.22
date: 1995/04/06 01:05:25; author: billz; state: Exp; lines: +2 -2
Check in of new placement. 58 rows. Aligned to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/cc.V,v
Working file: verilog/bsrc/cc/cc.V
head: 1.87
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 87; selected revisions: 3
description:
_____
revision 1.78
date: 1995/04/06 23:12:31; author: billz; state: Exp; lines: +2 -2
Placement is updated.
Changes to cc.V: just declared wire busy.
Makefile: just changed GARDS DISPLAY.
_____
revision 1.77
date: 1995/04/06 21:29:13; author: billz; state: Exp; lines: +24 -5
Adds the "cache index match 12 back" case to be a latedirty
case. That is if a clean miss occurs and there happened to
be a store to the same cache line 12 cycles back, it turns
into a dirty miss, and the cache line is written back.
Caution: cc interface changes. hz10or12backR5R6 signal added.
Haven't update placement yet; add the moment, need a gplace license.
Haven't updated euterpe yet, but will.
This problem brought to light in cachenasty2.
revision 1.76
date: 1995/04/06 01:05:28; author: billz; state: Exp; lines: +5 -4
Check in of new placement. 58 rows. Aligned to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/cc misc.pim,v
Working file: verilog/bsrc/cc/cc misc.pim
head: 73.3
branch:
locks: strict
access list:
```

Exhibit D51 Page 29 of 53

```
keyword substitution: kv
total revisions: 3; selected revisions: 1
description:
revision 73.1
date: 1995/04/06 01:05:30; author: billz; state: Exp;
Check in of new placement. 58 rows. Aliqued to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/cccount.pla,v
Working file: verilog/bsrc/cc/cccount.pla
head: 28.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6; selected revisions: 1
description:
_____
revision 28.6
date: 1995/04/06 01:05:32; author: billz; state: Exp; lines: +2 -1
Check in of new placement. 58 rows. Aligned to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/cchexcount.pla,v
Working file: verilog/bsrc/cc/cchexcount.pla
head: 28.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;
                  selected revisions: 1
description:
_____
revision 28.5
date: 1995/04/06 01:05:34; author: billz; state: Exp; lines: +2 -1 Check in of new placement. 58 rows. Aligned to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/cchold.Vegn,v
Working file: verilog/bsrc/cc/cchold.Veqn
head: 60.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3; selected revisions: 1
description:
revision 60.3
date: 1995/04/06 01:05:36; author: billz; state: Exp; lines: +2 -1
Check in of new placement. 58 rows. Aligned to
nb, at, and sr. Converges in 0 iterations.
______
```

Exhibit D51 Page 30 of 53

```
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/cclatedirty.Veqn,v
Working file: verilog/bsrc/cc/cclatedirty. Veqn
head: 40.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9; selected revisions: 2
description:
revision 40.7
date: 1995/04/06 21:29:15; author: billz; state: Exp; lines: +7 -5
Adds the "cache index match 12 back" case to be a latedirty
case. That is if a clean miss occurs and there happened to
be a store to the same cache line 12 cycles back, it turns
into a dirty miss, and the cache line is written back.
Caution: cc interface changes. hz10or12backR5R6 signal added.
Haven't update placement yet; add the moment, need a gplace license.
Haven't updated euterpe yet, but will.
This problem brought to light in cachenasty2.
revision 40.6
date: 1995/04/06 01:05:37; author: billz; state: Exp; lines: +2 -1
Check in of new placement. 58 rows. Aligned to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/ccrcv.Veqn,v
Working file: verilog/bsrc/cc/ccrcv.Veqn
head: 51.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10; selected revisions: 1
description:
revision 51.6
date: 1995/04/06 01:05:39; author: billz; state: Exp; lines: +2 -1
Check in of new placement. 58 rows. Aligned to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/ccseq.Veqn,v
Working file: verilog/bsrc/cc/ccseq.Veqn
head: 28.20
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 20; selected revisions: 2
description:
_____
```

Exhibit D51 Page 31 of 53

```
revision 28.19
date: 1995/04/06 18:22:53; author: billz; state: Exp; lines: +2 -2
Corrected arc to oblivion in ccseq. Vegn. Saved one atom.
revision 28,18
date: 1995/04/06 01:05:40; author: billz; state: Exp; lines: +2 -1
Check in of new placement. 58 rows. Aligned to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/ccstart.Veqn,v
Working file: verilog/bsrc/cc/ccstart.Vegn
head: 24.18
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 18; selected revisions: 1
description:
_____
revision 24.16
date: 1995/04/06 01:05:42; author: billz; state: Exp; lines: +2 -2
Check in of new placement. 58 rows. Aligned to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/cctester.V,v
Working file: verilog/bsrc/cc/cctester.V
head: 1.21
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 21; selected revisions: 1
description:
_____
revision 1,21
date: 1995/04/06 21:29:16; author: billz; state: Exp; lines: +5 -2
Adds the "cache index match 12 back" case to be a latedirty
case. That is if a clean miss occurs and there happened to
be a store to the same cache line 12 cycles back, it turns
into a dirty miss, and the cache line is written back.
Caution: cc interface changes, hz10or12backR5R6 signal added.
Haven't update placement yet; add the moment, need a gplace license.
Haven't updated euterpe yet, but will.
This problem brought to light in cachenasty2.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/genpim.pl,v
Working file: verilog/bsrc/cc/genpim.pl
head: 5.20
branch:
locks: strict
access list:
```

Exhibit D51 Page 32 of 53

```
keyword substitution: kv
total revisions: 20; selected revisions: 1
description:
revision 5.14
date: 1995/04/06 01:05:44; author: billz; state: Exp; lines: +2 -3
Check in of new placement. 58 rows. Aliqued to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cc/pimlib.pl,v
Working file: verilog/bsrc/cc/pimlib.pl
head: 5.16
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 16; selected revisions: 2
description:
______
revision 5.14
date: 1995/04/06 23:12:33; author: billz; state: Exp; lines: +3 -2
Placement is updated.
Changes to cc.V: just declared wire busy.
Makefile: just changed GARDS DISPLAY.
-----
revision 5.13
date: 1995/04/06 01:05:46; author: billz; state: Exp; lines: +114 -2
Check in of new placement. 58 rows. Aligned to
nb, at, and sr. Converges in 0 iterations.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cdio/cdio.V,v
Working file: verilog/bsrc/cdio/cdio.V
head: 1.20
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 20; selected revisions: 1
description:
revision 1.19
date: 1995/04/06 23:36:57; author: billz; state: Exp; lines: +9 -9
An attempt to fix the "dinX5X8[127:64] hold for 2 cycles, not 4" problem.
What happened to cdio tester. V? I'd be useful. I've got a
cdio tester.v, but see no cdio tester.V in cvs.
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/ce/ceregcore.V,v
Working file: verilog/bsrc/ce/ceregcore.V
head: 1.44
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 44; selected revisions: 1
```

Exhibit D51 Page 33 of 53

```
description:
revision 1.34
date: 1995/04/05 06:10:06; author: dickson; state: Exp; lines: +14 -7
added force of hchdis abm and dhchdis abm after machine check
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cj/BOM,v
Working file: verilog/bsrc/cj/BOM
head: 122.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 259; selected revisions: 4
description:
_____
revision 109.0
date: 1995/04/03 07:04:03; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/Makefile:
 Typo's left out GShuffleI4Mux (ex15test 0) and merge deposits
  (exresemdepitest1 0 and exresgmdepitest1 0). Add rsrvdgsffli4mx.tst rule.
revision 108.1
date: 1995/04/03 07:03:56; author: mws; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
_____
revision 108.0
date: 1995/04/02 02:46:44; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/rsrvd.tst Makefile:
 Typo left GCompressI out of the care sets and it then tended to become a
  reserved instruction (noticed by test xlu subset r1 1).
  Typo left GShuffleI and GShuffleI4Mux not checking their immediates (noticed
 by test ex15test 0). Add rsrvdgshffli.tst rule.
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
 Compatible with recent mem mngmnt pipelining.
tst/job.tst: Comment out perl debug warnings.
ife/iffree.tst: Experiments preparing for change in reset vector.
euterpe.status:
 Add note on LTLB changing under IFetch violating protection at new GVA.
 Remove note about lack of pipelined memory management enable.
 Add note on writeback reject bug worries.
 Add note on ICache size change exposure with mem management mode change.
Makefile euterpe wrap.V i euterpe wrap.tb i euterpe wrap.vhdl: lisar stuff.
revision 107.1
date: 1995/04/02 02:46:35; author: mws; state: Exp; lines: +4 -4
releasebom: File needs to be up-to-date to use commit -r
_____
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cj/Makefile,v
Working file: verilog/bsrc/cj/Makefile
head: 1.41
```

Exhibit D51 Page 34 of 53

```
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 41; selected revisions: 3
description:
revision 1.40
date: 1995/04/06 18:24:36; author: mws; state: Exp; lines: +5 -1
Add rsrvdedepi.tst rule.
revision 1.39
date: 1995/04/03 07:02:34; author: mws; state: Exp; lines: +6 -2
uu/uursrvduu.tdcd cj/Makefile:
  Typo's left out GShuffleI4Mux (ex15test 0) and merge deposits
  (exresemdepitest1 0 and exresgmdepitest1 0). Add rsrvdgsffli4mx.tst rule.
_____
revision 1.38
date: 1995/04/02 02:20:34; author: mws; state: Exp; lines: +8 -3
uu/uursrvduu.tdcd cj/rsrvd.tst Makefile:
  Typo left GCompressI out of the care sets and it then tended to become a
  reserved instruction (noticed by test xlu_subset_r1_1).
  Typo left GShuffleI and GShuffleI4Mux not checking their immediates (noticed
 by test ex15test_0). Add rsrvdgshffli.tst rule.
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
 Compatible with recent mem mngmnt pipelining.
_____
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cj/cjrst.tst,v
Working file: verilog/bsrc/cj/cjrst.tst
head: 13.39
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 39; selected revisions: 1
description:
revision 13.33
date: 1995/04/02 02:20:36; author: mws; state: Exp; lines: +3 -3
uu/uursrvduu.tdcd cj/rsrvd.tst Makefile:
  Typo left GCompressI out of the care sets and it then tended to become a
  reserved instruction (noticed by test xlu subset r1 1).
  Typo left GShuffleI and GShuffleI4Mux not checking their immediates (noticed
 by test ex15test 0). Add rsrvdgshffli.tst rule.
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
 Compatible with recent mem mngmnt pipelining.
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cj/rsrvd.tst,v
Working file: verilog/bsrc/cj/rsrvd.tst
head: 78.13
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13; selected revisions: 1
```

Exhibit D51 Page 35 of 53

```
description:
revision 78.8
date: 1995/04/02 02:20:37; author: mws; state: Exp; lines: +13 -14
uu/uursrvduu.tdcd cj/rsrvd.tst Makefile:
 Typo left GCompressI out of the care sets and it then tended to become a
 reserved instruction (noticed by test xlu subset r1 1).
 Typo left GShuffleI and GShuffleI4Mux not checking their immediates (noticed
 by test ex15test 0). Add rsrvdgshffli.tst rule.
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
 Compatible with recent mem mngmnt pipelining.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cp/BOM,v
Working file: verilog/bsrc/cp/BOM
head: 60.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 119; selected revisions: 2
description:
releasebom adding BOM
_____
revision 48.0
date: 1995/04/04 00:27:14; author: geert; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/cp
New placement. Made space for VDDTS
Geert
revision 47.1
date: 1995/04/04 00:27:06; author: geert; state: Exp; lines: +7 -6
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cp/clean-request,v
Working file: verilog/bsrc/cp/clean-request
head: 9.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9; selected revisions: 1
description:
revision 9.8
date: 1995/04/04 00:25:50; author: geert; state: Exp; lines: +2 -1
Made some space for the vddts wire
Geert
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cp/cph.pim,v
Working file: verilog/bsrc/cp/cph.pim
head: 41.8
```

Exhibit D51 Page 36 of 53

```
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8; selected revisions: 1
description:
_____
revision 41.5
date: 1995/04/04 00:25:55; author: geert; state: Exp; lines: +0 -238
Made some space for the vddts wire
Geert
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cp/cphh.pim,v
Working file: verilog/bsrc/cp/cphh.pim
head: 47.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4; selected revisions: 1
description:
_____
revision 47.1
date: 1995/04/04 00:25:57; author: geert; state: Exp;
Made some space for the vddts wire
Geert
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cp/genpim.pl,v
Working file: verilog/bsrc/cp/genpim.pl
head: 5.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 11; selected revisions: 1
description:
revision 5.10
date: 1995/04/04 00:26:04; author: geert; state: Exp; lines: +8 -1
Made some space for the vddts wire
Geert
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cp/pimlib.pl,v
Working file: verilog/bsrc/cp/pimlib.pl
head: 5.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4; selected revisions: 1
description:
```

Exhibit D51 Page 37 of 53

```
revision 5.4
date: 1995/04/04 00:26:06; author: geert; state: Exp; lines: +8 -1
Made some space for the vddts wire
Geert.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/es/BOM, v
Working file: verilog/bsrc/es/BOM
head: 97.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 198; selected revisions: 2
description:
_____
revision 84.0
date: 1995/04/06 06:36:44; author: dickson; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/es
move horizontal squeezing
-----
revision 83.1
date: 1995/04/06 06:36:37; author: dickson; state: Exp; lines: +3 -3
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/es/clean-request,v
Working file: verilog/bsrc/es/clean-request
head: 45.15
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 15; selected revisions: 1
description:
revision 45.13
date: 1995/04/06 06:35:43; author: dickson; state: Exp; lines: +2 -1
start clean on next releasebom
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/es/es.pim,v
Working file: verilog/bsrc/es/es.pim
head: 5.55
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 55; selected revisions: 1
description:
revision 5.47
date: 1995/04/06 06:34:58; author: dickson; state: Exp; lines: +6447 -6447
more horizontal squeezing
```

Exhibit D51 Page 38 of 53

```
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/gf/BOM,v
Working file: verilog/bsrc/gf/BOM
head: 37.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 72; selected revisions: 2
description:
releasebom adding BOM
revision 30.0
date: 1995/04/03 17:43:16; author: dickson; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/gf
moved to align with bit positions 127:64 instead of 63:0
revision 29.1
date: 1995/04/03 17:43:08; author: dickson; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/qf/qf.pim,v
Working file: verilog/bsrc/gf/gf.pim
head: 4.15
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 15; selected revisions: 1
description:
revision 4.10
date: 1995/04/03 17:42:08; author: dickson; state: Exp; lines: +8 -32
moved placement to aligne with bit positions 127:64 instead
of 63:0
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/gt/BOM,v
Working file: verilog/bsrc/gt/BOM
head: 98.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 194; selected revisions: 2
description:
releasebom adding BOM
revision 81.0
date: 1995/04/04 05:13:16; author: tbr; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/gt
move control to center - saves 400 atoms
_____
```

Exhibit D51 Page 39 of 53

```
revision 80.1
date: 1995/04/04 05:13:09; author: tbr; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/qt/pimlib.pl,v
Working file: verilog/bsrc/qt/pimlib.pl
head: 26.23
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 23; selected revisions: 1
description:
revision 26.14
date: 1995/04/04 05:12:32; author: tbr; state: Exp; lines: +50 -45
move control to center - saves 400 atoms
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/hc/BOM,v
Working file: verilog/bsrc/hc/BOM
head: 125.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 250; selected revisions: 6
description:
releasebom adding BOM
-----
revision 101.0
date: 1995/04/06 21:55:05; author: tbr; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/hc
change shape of placement - holein bottom right corner
_____
revision 100.1
date: 1995/04/06 21:54:58; author: tbr; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
revision 100.0
date: 1995/04/06 21:53:51; author: tbr; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/hc
change shape of placement - holein bottom right corner
_____
revision 99.1
date: 1995/04/06 21:53:44; author: tbr; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
revision 99.0
date: 1995/04/04 18:50:55; author: tbr; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/hc
100% handplace hc1
```

Exhibit D51 Page 40 of 53

```
revision 98.1
date: 1995/04/04 18:50:47; author: tbr; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/hc/hc.V,v
Working file: verilog/bsrc/hc/hc.V
head: 1.56
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 56; selected revisions: 2
description:
revision 1.52
date: 1995/04/04 19:58:12; author: woody; state: Exp; lines: +2 -4
Added missing pins to mnemo body.
Added isolation circuit to the mnemo pll reference voltage.
Added gnd to connector.
_____
revision 1.51
date: 1995/04/04 16:27:08; author: woody; state: Exp; lines: +2 -4
hc was forcing event daemon stores to be blocking by forcing the low order bits
of the address to indicate octlet 1. HC will no longer do this forcing. It is
the responsibility of the SW to use an address that will block.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/hc/pimlib.pl,v
Working file: verilog/bsrc/hc/pimlib.pl
head: 27.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10; selected revisions: 3
description:
revision 27.8
date: 1995/04/06 21:53:11; author: tbr; state: Exp; lines: +11 -9
change shape of placement - holein bottom right corner
revision 27.7
date: 1995/04/04 19:58:15; author: woody; state: Exp; lines: +1 -3
Added missing pins to mnemo body.
Added isolation circuit to the mnemo pll reference voltage.
Added gnd to connector.
revision 27.6
date: 1995/04/04 18:48:52; author: tbr; state: Exp; lines: +277 -4
100% handplace hc1
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/ife/BOM, v
Working file: verilog/bsrc/ife/BOM
head: 68.1
branch:
```

Exhibit D51 Page 41 of 53

```
locks: strict
access list:
keyword substitution: kv
total revisions: 140; selected revisions: 2
description:
revision 59.0
date: 1995/04/02 02:49:46; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/rsrvd.tst Makefile:
  Typo left GCompressI out of the care sets and it then tended to become a
 reserved instruction (noticed by test xlu subset r1 1).
  Typo left GShuffleI and GShuffleI4Mux not checking their immediates (noticed
 by test ex15test_0). Add rsrvdgshffli.tst rule.
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
  Compatible with recent mem mngmnt pipelining.
tst/job.tst: Comment out perl debug warnings.
ife/iffree.tst: Experiments preparing for change in reset vector.
euterpe.status:
 Add note on LTLB changing under IFetch violating protection at new GVA.
 Remove note about lack of pipelined memory management enable.
 Add note on writeback reject bug worries.
 Add note on ICache size change exposure with mem management mode change.
Makefile euterpe wrap.V i euterpe wrap.tb i euterpe wrap.vhdl: lisar stuff.
______
revision 58.1
date: 1995/04/02 02:49:36; author: mws; state: Exp; lines: +3 -3
releasebom: File needs to be up-to-date to use commit -r
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/ife/iffree.tst,v
Working file: verilog/bsrc/ife/iffree.tst
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7; selected revisions: 1
description:
revision 1.5
date: 1995/04/02 02:21:09; author: mws; state: Exp; lines: +14 -10
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
 Compatible with recent mem mngmnt pipelining.
ife/iffree.tst: Experiments preparing for change in reset vector.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/ife/ifrst.tst,v
Working file: verilog/bsrc/ife/ifrst.tst
head: 2.12
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 12; selected revisions: 1
description:
```

Exhibit D51 Page 42 of 53

```
revision 2.9
date: 1995/04/02 02:21:11; author: mws; state: Exp; lines: +2 -2
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
 Compatible with recent mem mngmnt pipelining.
ife/iffree.tst: Experiments preparing for change in reset vector.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/mc/BOM,v
Working file: verilog/bsrc/mc/BOM
head: 79.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 157; selected revisions: 2
description:
releasebom adding BOM
_____
revision 66.0
date: 1995/04/06 06:45:02; author: dickson; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/mc
move placement right and redo center control stipe to solve un-routes
revision 65.1
date: 1995/04/06 06:44:54; author: dickson; state: Exp; lines: +6 -6
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/mc/clean-request,v
Working file: verilog/bsrc/mc/clean-request
head: 17.19
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 19; selected revisions: 2
description:
revision 17.14
date: 1995/04/06 06:43:45; author: dickson; state: Exp; lines: +2 -1
start clean on next releasebom
revision 17.13
date: 1995/04/06 06:41:15; author: dickson; state: Exp; lines: +2 -1
move placement to right and redo center control stripe
to solve un-routes in this area
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/mc/genpim.pl,v
Working file: verilog/bsrc/mc/genpim.pl
head: 13.17
branch:
locks: strict
access list:
keyword substitution: kv
```

Exhibit D51 Page 43 of 53

```
total revisions: 17; selected revisions: 1
description:
revision 13.12
date: 1995/04/06 06:41:17; author: dickson; state: Exp; lines: +3 -3
move placement to right and redo center control stripe
to solve un-routes in this area
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/mc/mc.control.pim,v
Working file: verilog/bsrc/mc/mc.control.pim
head: 48.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8; selected revisions: 1
description:
_____
revision 48.6
date: 1995/04/06 06:41:19; author: dickson; state: Exp; lines: +594 -754
move placement to right and redo center control stripe
to solve un-routes in this area
_____
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/mc/mc.dataHigh.pim,v
Working file: verilog/bsrc/mc/mc.dataHigh.pim
head: 48.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9; selected revisions: 1
description:
_____
revision 48.6
date: 1995/04/06 06:41:21; author: dickson; state: Exp; lines: +1268 -1268
move placement to right and redo center control stripe
to solve un-routes in this area
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/mc/mc.dataLow.pim,v
Working file: verilog/bsrc/mc/mc.dataLow.pim
head: 48.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7; selected revisions: 1
description:
revision 48.5
date: 1995/04/06 06:41:24; author: dickson; state: Exp; lines: +1246 -1246
move placement to right and redo center control stripe
to solve un-routes in this area
_____
```

Exhibit D51 Page 44 of 53

```
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/rg/BOM,v
Working file: verilog/bsrc/rg/BOM
head: 136.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 297; selected revisions: 4
description:
revision 110.0
date: 1995/04/06 06:39:48; author: dickson; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/rg
elliminate placement collisions
revision 109.1
date: 1995/04/06 06:39:40; author: dickson; state: Exp; lines: +3 -3
releasebom: File needs to be up-to-date to use commit -r
_____
revision 109.0
date: 1995/04/03 20:14:26; author: dickson; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/rg
moved pc to bit positions 63:0 from 127:64 and moved bypass mux elements to free
up more horizontal tracks
-----
revision 108.1
date: 1995/04/03 20:14:18; author: dickson; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/rg/clean-request,v
Working file: verilog/bsrc/rg/clean-request
head: 60.12
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 12; selected revisions: 1
description:
revision 60.8
date: 1995/04/06 06:38:38; author: dickson; state: Exp; lines: +1 -0
placement change to elliminate collisions in top level placement
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/rg/rg.pim,v
Working file: verilog/bsrc/rg/rg.pim
head: 82.31
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 31; selected revisions: 2
description:
_____
```

Exhibit D51 Page 45 of 53

```
revision 82.16
date: 1995/04/06 06:38:41; author: dickson; state: Exp; lines: +2622 -2622
placement change to elliminate collisions in top level placement
revision 82.15
date: 1995/04/03 19:57:02; author: dickson; state: Exp; lines: +2629 -2629
moved pc blocks to align with bits 63:0 was 127:64
also moved muxes and mux f/f's of bypass mux in rq
in a different order to free up more horizontal tracks.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/tst/BOM, v
Working file: verilog/bsrc/tst/BOM
head: 112.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 234; selected revisions: 2
description:
releasebom adding BOM
______
revision 102.0
date: 1995/04/02 02:52:20; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/rsrvd.tst Makefile:
 Typo left GCompressI out of the care sets and it then tended to become a
  reserved instruction (noticed by test xlu subset r1 1).
 Typo left GShuffleI and GShuffleI4Mux not checking their immediates (noticed
 by test ex15test 0). Add rsrvdgshffli.tst rule.
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
  Compatible with recent mem mngmnt pipelining.
tst/job.tst: Comment out perl debug warnings.
ife/iffree.tst: Experiments preparing for change in reset vector.
euterpe.status:
 Add note on LTLB changing under IFetch violating protection at new GVA.
  Remove note about lack of pipelined memory management enable.
  Add note on writeback reject bug worries.
 Add note on ICache size change exposure with mem management mode change.
Makefile euterpe wrap.V i euterpe wrap.tb i euterpe wrap.vhdl: lisar stuff.
revision 101.1
date: 1995/04/02 02:52:09; author: mws; state: Exp; lines: +3 -3
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/tst/drvchk.V,v
Working file: verilog/bsrc/tst/drvchk.V
head: 1.85
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 85; selected revisions: 1
description:
```

Exhibit D51 Page 46 of 53

```
revision 1.77
date: 1995/04/02 02:06:35; author: mws; state: Exp; lines: +3 -3
tst/drvchk.V: Compatible with recent mem mngmnt pipelining.
tst/job.tst: Comment out perl debug warnings.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/tst/job.tst,v
Working file: verilog/bsrc/tst/job.tst
head: 6.41
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 41; selected revisions: 1
description:
revision 6.36
date: 1995/04/02 02:06:38; author: mws; state: Exp; lines: +3 -3
tst/drvchk.V: Compatible with recent mem mngmnt pipelining.
tst/job.tst: Comment out perl debug warnings.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/BOM,v
Working file: verilog/bsrc/uu/BOM
head: 218.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 480; selected revisions: 6
description:
-----
revision 175.0
date: 1995/04/06 22:58:15; author: lisar; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
Picked up placement BOMs and bug fixes as described below.
Have run 5woody in verilog simulation.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/euterpe.V,v
revision 6.392
date: 1995/04/06 14:54:55 LT; author: billz; state: Exp; lines: +4 -2
Added interface signal hz10or12back (HZ-something-or-other) to
cc. Consistant with cc v1.77.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uuprblmr9.Veqn,v
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uu.V,v
revision 61.15
date: 1995/04/05 13:35:16 LT; author: mws; state: Exp; lines: +13 -9
uu/uuprblmr9 uu/uu.V: uuYieldsNbInR10 was on for Ifetch loopbacks, allowing
 CC to make new fill requests to NB and thus discarding loopbacks in progress.
  Test cachenasty3 accidentally noticed on a SN128WrtI.
```

Exhibit D51 Page 47 of 53

```
RCS file: /p/cvsroot/euterpe/verilog/bsrc/uu/uursrvduv.pla,v
revision 170.2
date: 1995/04/06 12:37:12 LT; author: mws; state: Exp; lines: +2 -2
Unclosed comment lost EDepI/EWithdrawI check for both
  immediates > 31. Found by veena test uu/edepi.pl.
_____
RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/ccseq.Veqn,v
revision 28.19
date: 1995/04/06 11:22:53 LT; author: billz; state: Exp; lines: +2 -2
Corrected arc to oblivion in ccseq. Veqn. Saved one atom.
RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/cc.V,v
RCS file: /p/cvsroot/euterpe/verilog/bsrc/cc/cclatedirty.Veqn,v
revision 1.77
date: 1995/04/06 14:29:13 LT; author: billz; state: Exp; lines: +24 -5 Adds the "cache index match 12 back" case to be a latedirty
case. That is if a clean miss occurs and there happened to
be a store to the same cache line 12 cycles back, it turns
into a dirty miss, and the cache line is written back.
Caution: cc interface changes. hz10or12backR5R6 signal added.
Haven't update placement yet; add the moment, need a gplace license.
Haven't updated euterpe yet, but will.
This problem brought to light in cachenasty2.
-----
_____
revision 174.1
date: 1995/04/06 22:58:06; author: lisar; state: Exp; lines: +4 -4
releasebom: File needs to be up-to-date to use commit -r
_____
revision 174.0
date: 1995/04/03 07:07:54; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/Makefile:
 Typo's left out GShuffleI4Mux (ex15test 0) and merge deposits
 (exresemdepitest1 0 and exresgmdepitest1 0). Add rsrvdgsffli4mx.tst rule.
revision 173.1
date: 1995/04/03 07:07:45; author: mws; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
revision 173.0
date: 1995/04/02 02:53:09; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
uu/uursrvduu.tdcd cj/rsrvd.tst Makefile:
  Typo left GCompressI out of the care sets and it then tended to become a
  reserved instruction (noticed by test xlu subset r1 1).
  Typo left GShuffleI and GShuffleI4Mux not checking their immediates (noticed
 by test ex15test_0). Add rsrvdgshffli.tst rule.
tst/drvchk.V ife/ifetst.tst cj/cjrst.tst:
```

Exhibit D51 Page 48 of 53

```
Compatible with recent mem mngmnt pipelining.
tst/job.tst: Comment out perl debug warnings.
ife/iffree.tst: Experiments preparing for change in reset vector.
euterpe.status:
 Add note on LTLB changing under IFetch violating protection at new GVA.
 Remove note about lack of pipelined memory management enable.
 Add note on writeback reject bug worries.
 Add note on ICache size change exposure with mem management mode change.
Makefile euterpe wrap.V i euterpe wrap.tb i euterpe wrap.vhdl: lisar stuff.
revision 172.1
date: 1995/04/02 02:52:58; author: mws; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/genpim.pl,v
Working file: verilog/bsrc/uu/genpim.pl
head: 68.17
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 17; selected revisions: 1
description:
revision 68.14
date: 1995/04/03 14:19:54; author: woody; state: Exp; lines: +2 -2
genpim.pl: remove '.noPifPack' to help toplevel placement.
pimplib.pl: more improvement on the mincut placement seed. This verision
contains >1/3 of uu. All of the bypass comparators and all of the Problem Code
Pipeline.
uu control.pim: complete placement of uu/BOM 173.0. Trying to keep up.
success in pass3:
Atoms:
                      count atom bjt isrc pld clock
                      3785 25911 58156 41702 35960 17684
      BJT Totals:
   Generating Gards Nets file gards/uu.slack
   Generating instance drive strength file gards/uu-pass3.strength
   Disgorging sdl file gards/uu-pass3.sdl
     Writing sdl structure: gards 47 uu 46 edif
     Congratulations! No timing or DC Load violations!
Memory usage: 37.422MB
Exit code: 0 (Success)
                   ______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/pimlib.pl,v
Working file: verilog/bsrc/uu/pimlib.pl
head: 68.14
branch:
locks: strict
```

Exhibit D51 Page 49 of 53

```
access list:
keyword substitution: kv
total revisions: 14; selected revisions: 2
description:
revision 68.13
date: 1995/04/04 19:44:20; author: woody; state: Exp; lines: +47 -8
Latest placement. Getting better, but still doesn't converge.
revision 68.12
date: 1995/04/03 14:19:56; author: woody; state: Exp; lines: +430 -78
genpim.pl: remove '.noPifPack' to help toplevel placement.
pimplib.pl: more improvement on the mincut placement seed. This verision
contains >1/3 of uu. All of the bypass comparators and all of the Problem Code
Pipeline.
uu control.pim: complete placement of uu/BOM 173.0. Trying to keep up.
success in pass3:
Atoms:
                    count atom bjt isrc pld clock
      BJT Totals:
                   3785 25911 58156 41702 35960 17684
   Generating Gards Nets file gards/uu.slack
   Generating instance drive strength file gards/uu-pass3.strength
   Disgorging sdl file gards/uu-pass3.sdl
     Writing sdl structure: gards 47 uu 46 edif
     Congratulations! No timing or DC Load violations!
Memory usage: 37.422MB
Exit code: 0 (Success)
_____
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/uu.V,v
Working file: verilog/bsrc/uu/uu.V
head: 1.202
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 202; selected revisions: 2
description:
issue unit
revision 1.172
date: 1995/04/05 20:35:10; author: mws; state: Exp; lines: +7 -3
uu/uuprblmr9 uu/uu.V: uuYieldsNbInR10 was on for Ifetch loopbacks, allowing
 CC to make new fill requests to NB and thus discarding loopbacks in progress.
 Test cachenasty3 accidentally noticed on a SN128WrtI.
_____
revision 1.171
date: 1995/04/04 20:04:39; author: woody; state: Exp; lines: +5 -2
add another copy of reset for use by prblmfrz.
______
```

Exhibit D51 Page 50 of 53

```
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/uu control.pim,v
Working file: verilog/bsrc/uu/uu control.pim
head: 68.60
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 60; selected revisions: 3
description:
revision 68.37
date: 1995/04/04 19:44:32; author: woody; state: Exp; lines: +3121 -2103
Latest placement. Getting better, but still doesn't converge.
revision 68.36
date: 1995/04/03 21:57:19; author: woody; state: Exp; lines: +6 -2
full placement to BOM 174.0
revision 68.35
date: 1995/04/03 14:20:04; author: woody; state: Exp; lines: +4831 -5252
genpim.pl: remove '.noPifPack' to help toplevel placement.
pimplib.pl: more improvement on the mincut placement seed. This verision
contains >1/3 of uu. All of the bypass comparators and all of the Problem Code
Pipeline.
uu control.pim: complete placement of uu/BOM 173.0. Trying to keep up.
success in pass3:
Atoms:
                      count atom bjt isrc pld clock
                     3785 25911 58156 41702 35960 17684
      BJT Totals:
    Generating Gards Nets file gards/uu.slack
    Generating instance drive strength file gards/uu-pass3.strength
    Disgorging sdl file gards/uu-pass3.sdl
     Writing sdl structure: gards 47 uu 46 edif
     Congratulations! No timing or DC Load violations!
Memory usage: 37.422MB
Exit code: 0 (Success)
_____
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/uuprblmr9.Veqn,v
Working file: verilog/bsrc/uu/uuprblmr9.Vegn
head: 61.15
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 15; selected revisions: 1
description:
revision 61.15
```

Exhibit D51 Page 51 of 53

```
date: 1995/04/05 20:35:16; author: mws; state: Exp; lines: +13 -9
uu/uuprblmr9 uu/uu.V: uuYieldsNbInR10 was on for Ifetch loopbacks, allowing
 CC to make new fill requests to NB and thus discarding loopbacks in progress.
 Test cachenasty3 accidentally noticed on a SN128WrtI.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/uursrvduu.tdcd,v
Working file: verilog/bsrc/uu/uursrvduu.tdcd
head: 170.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4; selected revisions: 2
description:
revision 170.4
date: 1995/04/03 07:02:12; author: mws; state: Exp; lines: +7 -7
uu/uursrvduu.tdcd cj/Makefile:
 Typo's left out GShuffleI4Mux (ex15test 0) and merge deposits
 (exresemdepitest1 0 and exresgmdepitest1 0). Add rsrvdgsffli4mx.tst rule.
revision 170.3
date: 1995/04/02 01:54:35; author: mws; state: Exp; lines: +3 -3
 Typo left GShuffleI and GShuffleI4Mux not checking their immediates.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/uursrvduv.pla,v
Working file: verilog/bsrc/uu/uursrvduv.pla
head: 170.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
_____
revision 170.2
date: 1995/04/06 19:37:12; author: mws; state: Exp;
Unclosed comment lost EDepI/EWithdrawI check for both
 immediates > 31. Found by veena test uu/edepi.pl.
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/yy/BOM,v
Working file: verilog/bsrc/yy/BOM
head: 26.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 61; selected revisions: 2
description:
revision 25.0
date: 1995/04/03 07:15:06; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc
```

Exhibit D51 Page 52 of 53

```
uu/uursrvduu.tdcd cj/Makefile:
 Typo's left out GShuffleI4Mux (ex15test_0) and merge deposits
  (exresemdepitest1_0 and exresgmdepitest1_0). Add rsrvdgsffli4mx.tst rule.
yy/tas.pl: Typo's prevented shufflei4mux from being recognized.
revision 24.1
date: 1995/04/03 07:15:00; author: mws; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
______
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/yy/tas.pl,v
Working file: verilog/bsrc/yy/tas.pl
head: 1.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 24; selected revisions: 2
description:
simple terp assembler for tstgen; supports X's in instr fields
revision 1.24
date: 1995/04/06 18:49:43; author: mws; state: Exp; lines: +9 -8
Deposit/withdraw & copyswap had obsolete opcode-number assignments.
revision 1.23
date: 1995/04/03 07:10:28; author: mws; state: Exp; lines: +8 -7
Typo's prevented shufflei4mux from being recognized.
```

Exhibit D51 Page 53 of 53